

## Abstracts

A125

that are practiced in the hemodinamy service in the Cardiology Hospital “Centro Nacional Siglo XXI” in Mexico City. **METHODS:** Identification of resource use at the hemodinamy service was realized through expert opinion and the revision of hospital records during the first two months of 2005. Unitary costs were obtained from the Accounting Department of the hospital. The intervention's cost estimation was realized with the technique “case mix” and the perspective was that of the Social Security Mexican Institute (IMSS). The direct medical costs included: material of high specialty, medical instruments, drugs, cinefluoroscopy and human resources. Indirect medical costs included: equipment, depreciation, laundry, electricity, telephone, water, etc. Within the estimations of the interventions it was included the use of counterpulsation balloon, cutting balloon, glucoproteins (tirofiban or abciximab) and trombectomy. **RESULTS:** Diagnostic catheterism was estimated in US\$328.7. The cost of the other interventions shifted in function of the type of the stent used (conventional or medical). Intervention of one vessel with conventional stent resulted in US\$1182.5; and with medical stent this raised to US\$3438.5. Also, intervention costs of one vessel trombectomy + counterpulsation balloon + glucoproteins inhibitors resulted in US\$7508.1. An intervention with two left vessel was calculated in US\$10,910.2 and with two left vessel and one right vessel, the cost increased to US\$13,706.7. **CONCLUSIONS:** Our study results showed high direct medical costs heterogeneity on diagnostic procedures in a Mexican hemodinamy service. These results are useful for cost containment policies and for further health economics researches in Mexico.

PCV22

**INPATIENT MANAGEMENT OF TRANSMURAL AND SUBENDOCARDIAL ACUTE MYOCARDIAL INFARCTION (AMI): DIFFERENCES IN RESOURCE USE AND COST**

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**OBJECTIVES:** To identify number of transmural and subendocardial AMI cases, as well as related inpatient resource use and cost by type of AMI. **METHODS:** Reported all-payer 2003 hospital data from six states (CA, FL, MD, MA, TX, WA) were analyzed. Transmural (410.00–410.60, 410.01–410.61) and subendocardial (410.70, 410.71) AMI cases were identified using ICD-9 principal diagnosis codes. AMI cases with other (410.80, 410.81) or unspecified (410.90, 410.91) codes were identified, but excluded. Demographics, length of stay, admission source, AMI location, secondary diagnosis and procedure codes, DRG assignment, disposition status and reported charges were analyzed. Charges (accommodations, ancillary services) adjusted by a 0.65 cost-to-charge ratio, and for medical inflation and geographic factors to reflect national values are reported as costs (2005US\$). **RESULTS:** Of the 168,831 AMI cases identified, more than half (56%) were coded as subendocardial ( $n = 94,625$ ). Transmural AMI was coded for 35% ( $n = 59,123$ ); 9% were coded as other or unspecified AMI. The subendocardial AMI group had more females (47% vs. 40%), was older (mean age: 72, median: 75 years vs. mean: 68, median: 70 years), and had a slightly longer LOS (mean: 5.8, median: 4 days vs. mean: 5.5, median: 3.7 days), on average, than those with a transmural AMI. Significantly ( $p < 0.01$ ) fewer patients with subendocardial AMI had ICU days (50% vs. 75%), and percutaneous coronary (47% vs. 27%) and stent (8% vs. 6%) procedures. Coronary-bypass surgery rate was the same (10%) for both groups. Inpatient case fatality rate was significantly ( $p < 0.01$ ) higher for transmural group (10% vs. 7%). The average cost per stay for transmural AMI was \$34,012 (median: \$23,880); \$28,483

(median: \$18,664) for subendocardial AMI. **CONCLUSIONS:** Substantially fewer cases of acute transmural infarct were reported in this dataset. Yet, when reported, they were more lethal, resource intensive and costly than a subendocardial AMI.

PCV23

**AN ANALYSIS OF RESOURCE USE IN THE TREATMENT OF DEEP VEIN THROMBOSIS (DVT) IN BRAZIL**

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**OBJECTIVE:** DVT is an important problem in clinical practice. This study aims to estimate the costs of treatment of DVT from the perspective of the private medicine payers in Brazil. **METHODS:** To determine actual costs of patient management the resource use collected during comparative clinical trials often is insufficient. Although large data bases can be used to estimate patient health care resource consumption they are not always available. One reasonable data source is soliciting expert opinion from clinicians. Two Delphi panels one for vascular surgeons, and another for intensivists were performed in order to delineate practice patterns and to obtain resource utilization for routine treatment and monitoring, adverse event management and other clinical parameters representative of community physicians managing of DVT. Responses were obtained from seven vascular surgeons and five intensivists from various centers in Brazil with experience of treating DVT. Percentage likelihood of complications due to thromboprophylaxis was determined based upon physician consensus. A decision analytic model was designed to project the costs associated with venous thromboembolism. **RESULTS:** The detected mean cost (in Brazilian Reais) of DVT was R\$9895.23. The detected cost of diagnosing DVT was R\$74.01, the treatment cost without considering its complications was R\$5208.76 and the complications cost, balanced by incidence was R\$4612.46. The cost to avoid a DVT by the use of a thromboprophylaxis was R\$177.68. **CONCLUSIONS:** DVT costs are only a part of the costs incurred in treating high risk surgical or clinical patients. These results clearly show the substantial costs that a DVT may represent in the treatment of these patients that may be prevented by the use of thromboprophylaxis.

**CARDIOVASCULAR DISEASE—Health Care Use & Policy**

PCV24

**AFRICAN AMERICANS' RESPONSES TO DIRECT-TO-CONSUMER ADVERTISING (DTCA) OF LIPITOR®**

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**OBJECTIVES:** This study was designed to investigate how African American patients respond to DTCA of prescription drug Lipitor® and the relationships between potential influencing variables and patients' responses. **METHODS:** Face-to-face interview was employed for this study, and a convenience sample consisting of 160 African American patients were interviewed at a general medicine clinic in a public hospital. Short-Test of Functional Health Literacy in Adults (S-TOFHLA) was administered to all study participants. Then the participants were asked to view a TV advertisement of Lipitor®, followed by DTCA-related interviews. Patients' demographic and socioeconomic information was also collected during the interviews. Bivariate analyses and logistic regressions were used to assess the relationships between potential influencing variables and patients' responses

to DTCA. **RESULTS:** After watching the TV advertisement of Lipitor®, 89.3% of study participants agreed that they would talk to their physicians about their cholesterol, 88.7% agreed that they would ask their physicians to test their cholesterol levels, and 47.3% agreed that they would ask their doctors to write them a prescription for Lipitor®. The study also found that 26.0% of study participants had inadequate functional health literacy, 17.3% had marginal functional health literacy, and 56.7% had adequate health literacy. Participants who rated the advertisement as helpful responded more favorably to it. Older patients were more likely to agree to talk to doctors about cholesterol. Those who had a history of high cholesterol were more likely to agree to ask doctors to test their cholesterol levels. **CONCLUSIONS:** African American patients in this study responded more favorably to DTCA. DTCA may be an effective marketing tool for pharmaceutical companies. However, the net public health and economic effects of DTCA remain to be determined.

## PCV25

#### USE OF COMPLEMENTARY AND ALTERNATIVE MEDICINE BY HYPERTENSIVE PATIENTS IN THE UNITED STATES

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**OBJECTIVE:** Surveys have indicated that use of alternative treatments is increasing in the United States. One survey in found that 33.8% of Americans were using some form of alternative medicine and a later survey found that use had increased to 42.1% in 1997. The objective is to provide an estimate of the prevalence of Complementary and Alternate Medicine (CAM) use by hypertensive patients in the United States. **METHODS:** Cross-sectional analysis of the 2001–2003 Medical Expenditure Panel Survey, a nationally representative sample of the U.S. non-institutionalized civilian population. Patients with hypertension were identified by ICD-9-CM code of 401. Use and costs of CAM in patients with hypertension were compared with those in non-hypertensive individuals. Student's *t* test statistics was used to compare the costs associated with CAM use between the two groups. Multiple logistic regression was used to determine independent predictors of CAM use in individuals with hypertension, controlling for age, sex, race/ethnicity, household income, educational level, and co-morbidity. **RESULTS:** Individuals with hypertension were 1.3 times more likely to use CAM than individuals without hypertension (8 vs. 5%,  $P < 0.0001$ ). The data showed that the prevalence of CAM use among hypertensives not living in metropolitan statistical areas was twice that of living in metropolitan statistical areas (2.9% vs 1.5%;  $P = 0.02$ ). Among individuals with hypertension, older age (65 years) and higher educational attainment were independently associated with CAM use. The mean amount in dollars spent per person for CAM was not different in both groups ( $\$414 \pm 269$  vs.  $\$236 \pm 26$ ,  $P = 0.5106$ ). **CONCLUSIONS:** These findings have many implications for the way we understand CAM use among hypertensives, both for clinical applications and future research. The data provide a baseline estimate of CAM use among hypertensives in the United States.

## PCV26

#### PRESCRIBING PATTERNS FOR ANTIHYPERTENSIVE DRUGS AFTER THE PUBLICATION OF THE ANTIHYPERTENSIVE AND LIPID-LOWERING TREATMENT TO PREVENT HEART ATTACK TRIAL (ALLHAT) IN REGION EMILIA ROMAGNA (RER), ITALY

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**OBJECTIVES:** The ALLHAT findings (December 2002) recommended thiazide-type diuretics for first-step therapy in uncomplicated hypertensive patients, rather than either calcium channel blockers (CCBs) or angiotensin-converting enzyme (ACE) inhibitors. The objective of this study was to examine prescribing patterns for antihypertensive agents in Region Emilia Romagna (RER), Italy, following the ALLHAT publication. **METHODS:** We studied automated pharmacy claims of approximately 4 million RER residents between January 1, 2000 and December 31, 2003. We computed the monthly relative percentage of filled prescriptions for six antihypertensive classes: thiazide-type diuretics, ACE inhibitors or angiotensin receptor blockers (ARBs), CCBs, beta-blockers, alpha-blockers, and other-type antihypertensive diuretics. A stepwise auto-regressive forecasting model was used for time series analysis. To assess the impact of the ALLHAT guidelines on use of each antihypertensive class, predicted relative percentages and 95% confidence intervals were calculated for the 12 months of 2003. **RESULTS:** During the study period, ACE inhibitors/ARBs and CCBs had the largest relative percentages (approximately 40% and 30%, respectively), while the relative percentages for beta-blockers and thiazide-type diuretics were roughly 10% and 1%, respectively. Use of thiazide-type diuretics and ACE inhibitors/ARBs showed an overall upward trend, which was not statistically associated with the ALLHAT publication. The relative percentage of CCBs diminished over time and was statistically significant compared with that predicted by the time-series model in the last four months of 2003 ( $p < 0.05$ ). The percentage of beta-blockers was stable during the study period, although statistically significantly higher in the last 7 months of 2003 compared with the predicted values ( $p < 0.05$ ). Use of alpha-blockers and other-type antihypertensive diuretics was steady over time. **CONCLUSIONS:** The well-publicized ALLHAT findings had a limited impact on the prescribing patterns of antihypertensive drugs in Italy. Further research should investigate why physicians appeared to be unresponsive to the new clinical evidence.

## PCV27

#### THE IMPACT OF DOSE INCREASE ON THE COST-EFFECTIVENESS OF STATINS

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**OBJECTIVES:** Statins reduce morbidity and mortality in the prevention of cardiovascular disease (CVD). Clinical trials have shown that the lower the cholesterol level obtained, the lower the risk of (CVD). Therefore, the use of high doses of statins is often encouraged. Rosuvastatin is the most potent statin but cholesterol changes obtained with the lower doses can also be reached by increasing the dose of atorvastatin or simvastatin. The aim of this study is to assess the impact of dose increases on the cost-effectiveness of statins in Belgium. **METHODS:** A state-transition model with a 20-year time horizon using 6-month cycles was developed in MSExcel. Individuals enter the model CVD free. Depending on age, smoking status, systolic blood pressure, total cholesterol (TC) and HDL-cholesterol, CVD risk (cardiac death, non-fatal MI, angina, fatal and non-fatal stroke) was calculated using the SCORE equation. The STELLAR-study, which compared the efficacy of rosuvastatin, atorvastatin, and simvastatin across doses, served as data source (reduction in TC with 10mg rosuvastatin, 20mg atorvastatin and 80mg simvastatin approximately equal). Official sources for cost of events and costs of the different statins were used (Belgian payers perspective). 3% discounting was applied on costs and effects.